



# New rooftop series

UATYQ-ABAY1 | AFC2Y1 | AFC3Y1

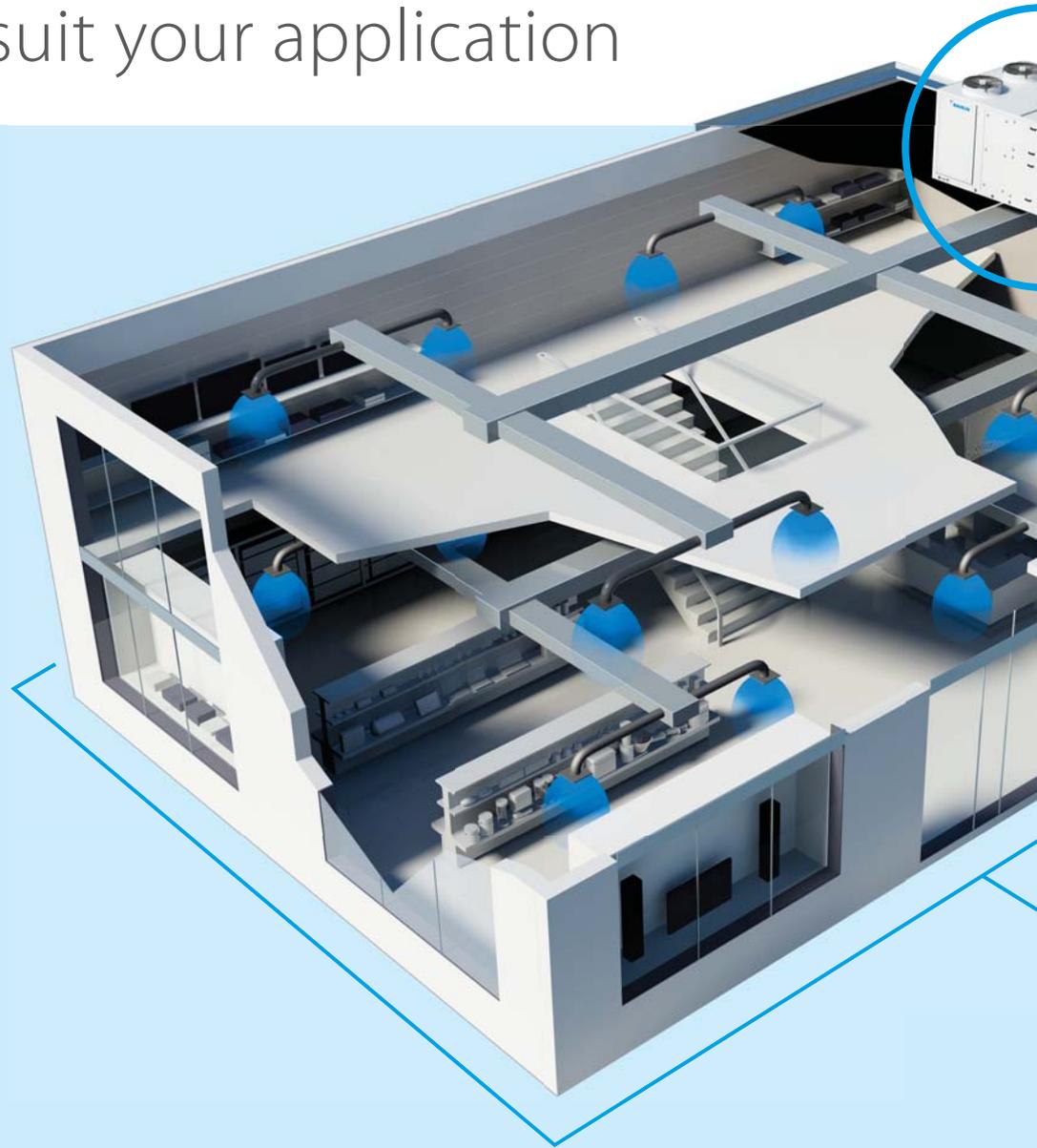


Extensive option package included in all models



# Daikin rooftop series

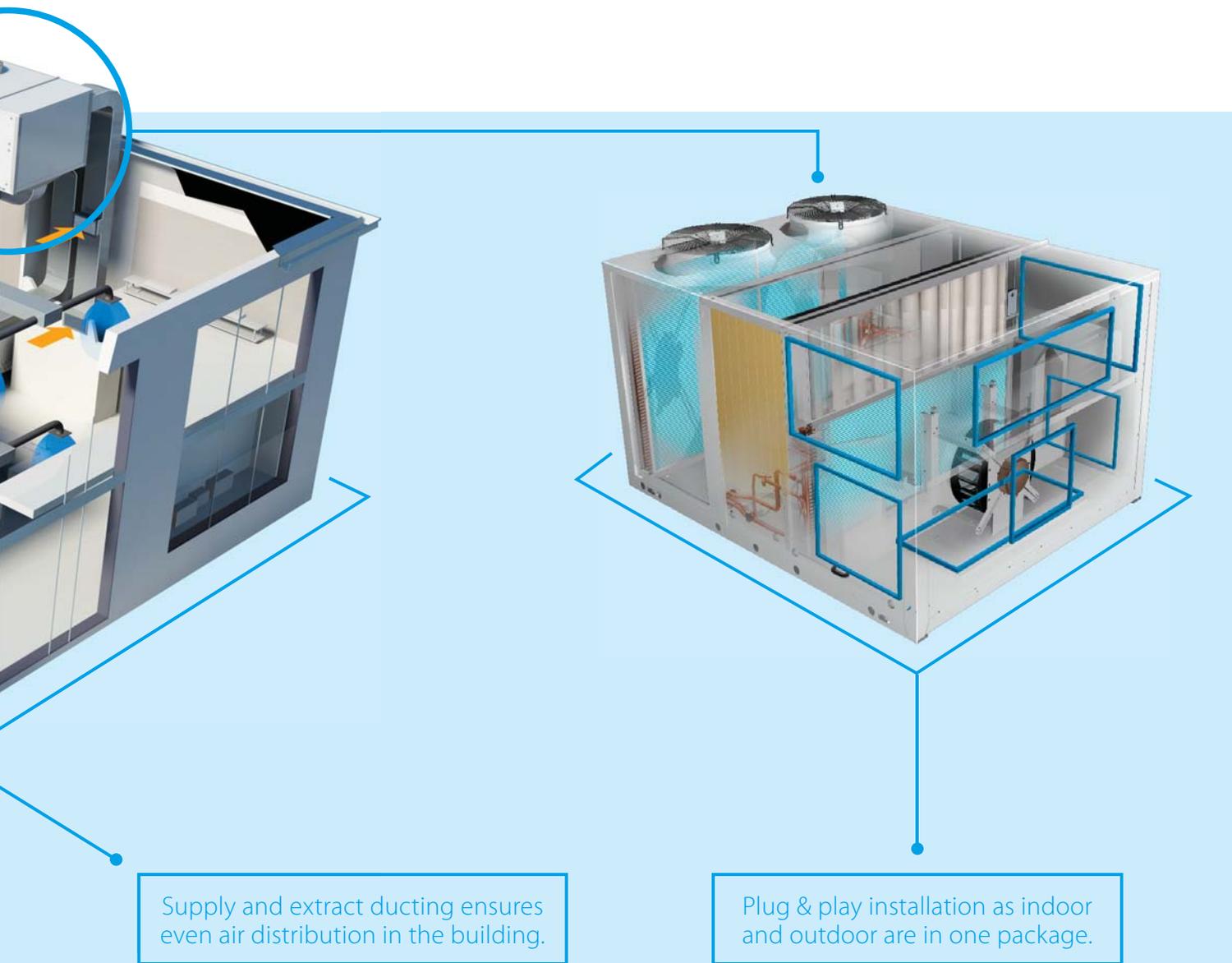
Flexible to suit your application



## Rooftop series for Retail & Department Stores

Retail & department stores need challenging design because of **limited space and complex building structure, containing different floors and spaces**. Daikin rooftop series provides the solution:

- › Ductwork can be connected flexibly (front, left, right, bottom) to optimise installation space
- › High efficiency EC plug fans are maintenance free, limiting the downtime of the system for maintenance
- › Extraction damper and fan ensure there is no overpressure in the building and air circulation is optimised
- › High indoor air quality can be guaranteed thanks to integrated fresh air provision.



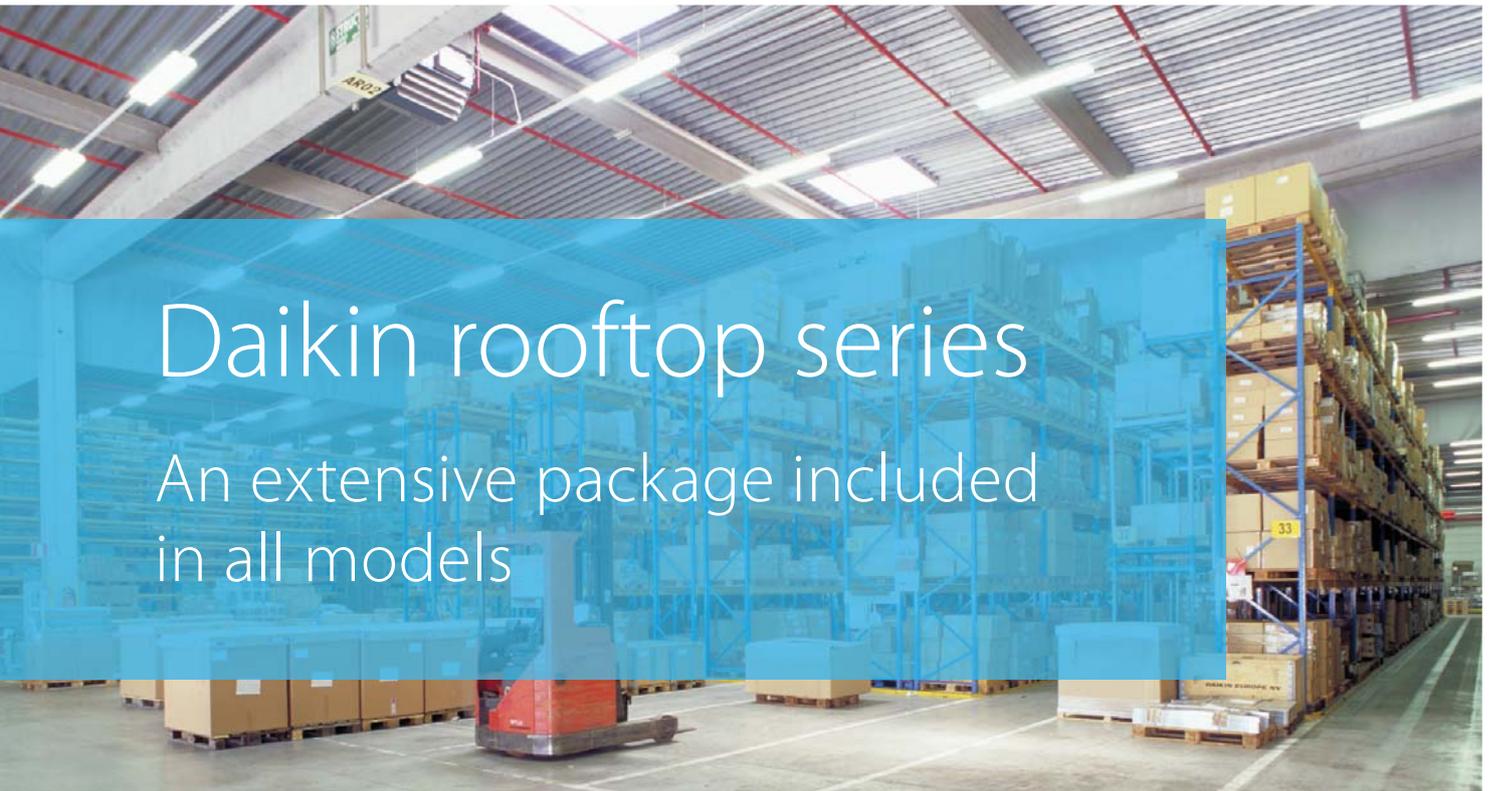
Supply and extract ducting ensures even air distribution in the building.

Plug & play installation as indoor and outdoor are in one package.

## Rooftop series for warehouses, larger restaurants & retail sheds

For building managers and engineers, warehouses or industrial applications can pose serious HVAC **challenges because of their size and unique design**. Daikin rooftop series provide the solution:

- › Pre-connected indoor/outdoor units and factory charged refrigerant provide cost-effective installation
- › High ESP up to 300Pa allows extensive ductwork to evenly distribute the air across a large space
- › Scroll compressor and free cooling ensure highly efficient 24/7 operation
- › Clogged filter alarm indicates when filter needs cleaning, ensuring optimum operation and minimized energy consumption.



# Daikin rooftop series

An extensive package included in all models



## 1 Standard integrated high efficiency EC plug fans

- › Static pressure up to 300Pa
- › Inverter controlled
- › Maintenance free

## 2 Standard flexible air delivery

- › Up to 4 possible sides can be selected on site (front, left, right, bottom)

## 3 Latest pCO<sup>5</sup> controller

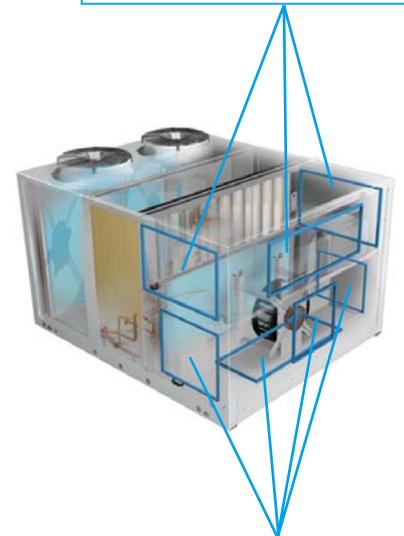
- › Direct integration into Daikin intelligent Touch Manager BMS (via optional BACnet protocol)
- › Easy integration in 3<sup>rd</sup> party BMS systems
  - › Standard Modbus protocol
  - › Optional BACnet protocol

## 4 Standard clogged filter alarm

- › Indicates when a filter requires cleaning
- › Improved indoor air quality and efficiency

## 5 Hydrophilic coated aluminium fins on indoor and outdoor side

Up to 3 sides to connect the return duct

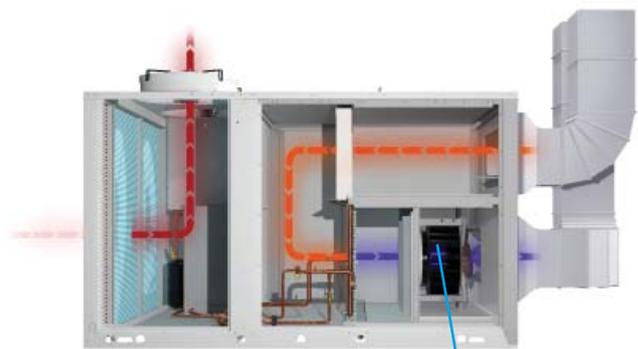


Up to 4 sides to connect the supply duct

## UATYQ-ABAY1

### High installation flexibility and easy servicing

- › Easy to install 'plug and play' concept plus single installation configuration; no additional piping is required since indoor and outdoor sides are pre-connected
- › High efficiency and reliable scroll compressor
- › Factory pre-charged refrigerant ensures clean and efficient operation



EC plug fan

Cooling operation example

## UATYQ-AFC2Y1

### 2 damper version, with integrated fresh air

- › Free cooling with 100% fresh air possible
  - › Improved air quality
  - › Energy saving using fresh outdoor air to cool the building
- › Standard CO<sub>2</sub> sensor connection
  - › Ideal balance between efficiency and indoor air quality
- › Includes all base model features



Fresh air damper

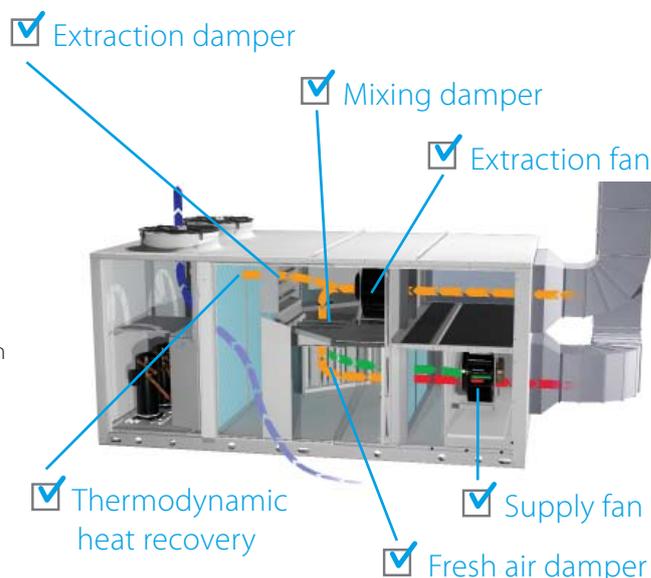
Return air damper

Cooling operation example

## UATYQ-AFC3Y1

### 3 damper version, with integrated fresh air and extraction

- › Extraction damper integrated
  - › Eliminates excessive overpressure in the building
  - › UATYQ45-115AFC3Y1 models include high efficient extraction fan for optimum air circulation in larger buildings
- › Thermo dynamic heat recovery
  - › Saves energy by recovering waste heat through the outdoor heat exchanger
  - › Available on UATYQ20-55AFC3Y1



Extraction damper

Mixing damper

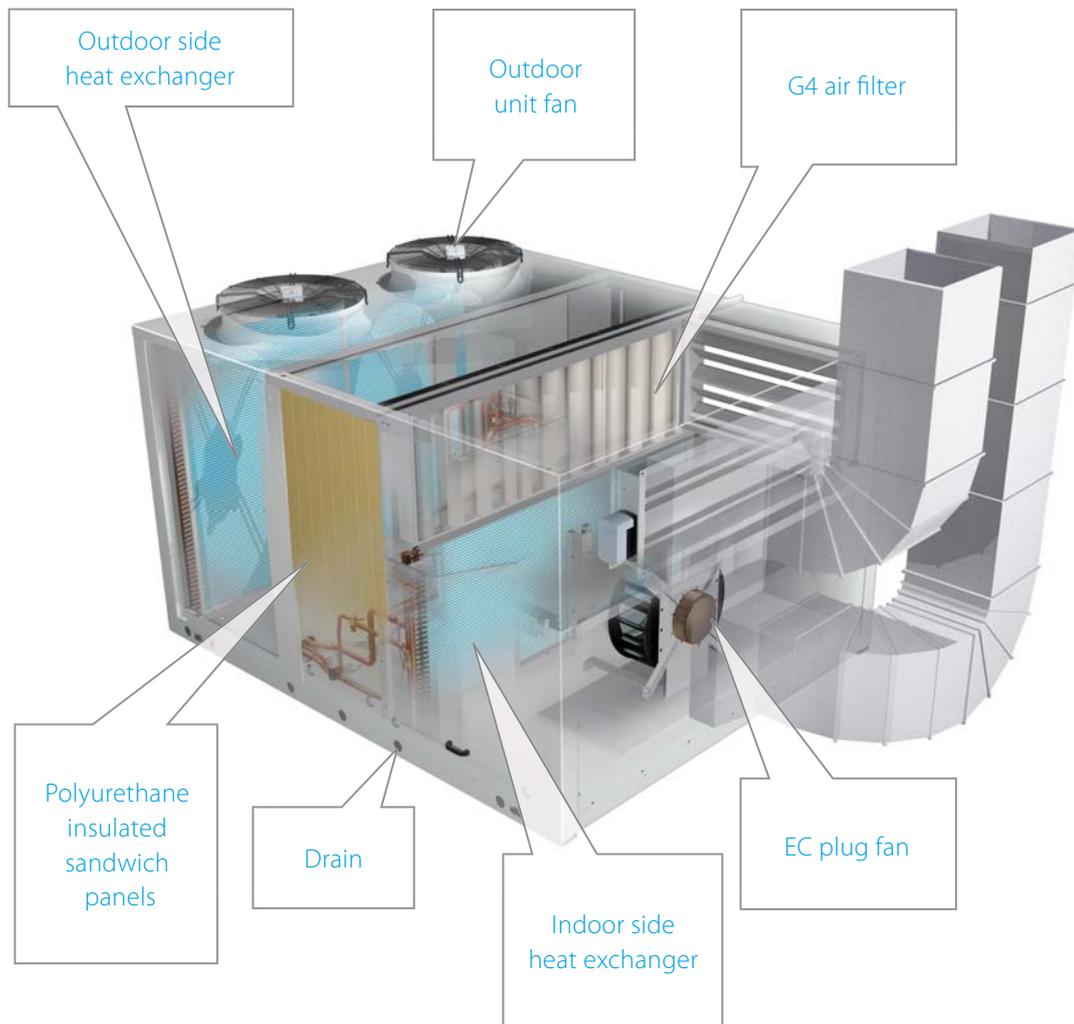
Extraction fan

Thermodynamic heat recovery

Supply fan

Fresh air damper

Heating operation example



# Products overview rooftops

Capacity class (kW)

Model	Product name	20	25	30	45	50	55	65	75	90	100	115
<b>Rooftop unit</b> With extensive base package for high installation flexibility and easy servicing - 'Plug and play' for easy installation - High efficiency - Field convertible return and supply air - Direct integration with Daikin or third party BMS - Factory pre-charged refrigerant	UATYQ-ABAY1	•	•	•	•	•	•	•	•	•	•	•
<b>Rooftop unit</b> 2 damper version with integrated fresh air - 'Plug and play' for easy installation - Free cooling with up to 100% fresh air intake - High efficiency - Field convertible return and supply air - Direct integration with Daikin or third party BMS	UATYQ-AFC2Y1	•	•	•	•	•	•	•	•	•	•	•
<b>Rooftop unit</b> 3 damper version with integrated fresh air and extraction - 'Plug and play' for easy installation - Integrated extraction damper eliminates over-pressure - Thermo dynamic heat recovery, recovering waste heat - Free cooling with up to 100% fresh air intake - Field convertible return and supply air	UATYQ-AFC3Y1	•	•	•	•	•	•	•	•	•	•	•
Any capacity size can be selected in one of the three available configurations: UATYQ-ABAY1 UATYQ-AFC2Y1 UATYQ-AFC3Y1												

# Specifications

## UATYQ-ABAY1 - Base version - 100% air recirculation

UATYQ-ABAY1				20	25	30	45	50	55	65	75	90	100	115			
Cooling capacity	Nom.		kW	19.5	28.0	30.4	44.1	49.2	51.6	63.5	73.9	90.3	101.6	106.8			
	with 30% fresh air		kW	20.9	30.0	32.5	47.8	52.3	55.1	68.1	78.9	96.7	108.2	114.2			
Heating capacity	Nom.		kW	17.9	27.0	31.3	46.1	51.9	56.3	63.8	76.6	93.3	104.5	114.2			
	with 30% fresh air		kW	18.3	27.5	31.8	48.8	52.6	57.2	65.5	77.8	94.9	106.0	116.6			
Space cooling	Capacity	Pdesign	kW	19.5	28.0	30.4	44.1	49.2	51.6	63.5	73.9	90.3	101.6	106.8			
	ηs,c		%	135.0	143.5	127.5	119.5	134.1	129.0	130.4	124.6	118.2	137.9	127.0			
Space heating	Capacity	Pdesign	kW	17.9	27.0	31.3	46.1	51.9	56.3	63.8	76.6	93.3	104.5	114.2			
	(Average climate) ηs,h		%	115.4	129.0	119.5	115.4	125.2	124.8	121.0	118.2	116.0	125.3	124.3			
Power input	Cooling	Nom.	kW	6.6	10.0	12.0	17.0	19.7	22.5	23.6	29.7	33.8	39.0	44.3			
	Heating	Nom.	kW	5.8	8.0	9.6	14.6	16.3	18.1	20.0	25.1	29.9	33.2	37.3			
EER	with 30% fresh air			3.14	2.95	2.67	2.82	2.60	2.41	2.85	2.61	2.82	2.73	2.53			
COP	with 30% fresh air			3.37	3.75	3.56	3.44	3.48	3.40	3.64	3.31	3.38	3.43	3.35			
Evaporator	Supply side	Fan	Air flow rate	m³/s	1.375	2.017	2.292	3.056	3.361	3.667	4.278	4.889	5.806	6.569	7.028		
			Nom. external static pressure	Pa	300												
Return side	Fan	Air discharge direction		Frontal, Left			Frontal, Left, Right, Bottom			Left, Right, Bottom							
		Air intake direction		Rear			Rear, Right, Left			Rear							
Condenser	Air flow rate	Cooling	m³/s	3.194	3.333			5.277			9.222		12.222				
	Refrigerant	Type / GWP					R410-A / 2,087.5										
Condenser	Charge	TCO2Eq / kg		15.7 / 7.5	27.1 / 13.0			35.5 / 17.0			31.3 / 15.0		41.8 / 20.0		43.8 / 21.0		48.0 / 23.0
			Dimensions	Unit	Height x Width x Depth	mm	1,600 x 1,790 x 1,730			1,800 x 2,715 x 2,245			1,800 x 3,750 x 2,240		2,180 x 4,050 x 2,240		
Weight	Unit	kg		672	780			1,068			1,553		1,738		1,742	1,794	
			Casing	Colour		RAL 7035											
Sound pressure level	Cooling	dBA		60				61			63		64		65		
			Sound power level	Cooling	dBA	77	78			79			81		83		85
Operation range	Cooling	Min. ~ Max.	°CDB	0 ~ 47													
				Heating	Min. ~ Max.	°CWB -12.1 ~ 19.5											
Power supply	Voltage / Phase / Frequency	V / Hz	400/3+N/50 ±5%														
			Current	Recommended fuses	A	25	32	40	50	63	80	100	400/3/50 ±5%		125		

## UATYQ-AFC2Y1 - FC2 version - up to 100% fresh air

UATYQ-AFC2Y1				20	25	30	45	50	55	65	75	90	100	115			
Cooling capacity	Nom.		kW	19.5	28.0	30.4	44.1	49.2	51.6	63.5	73.9	90.3	101.6	106.8			
	with 30% fresh air		kW	20.9	30.0	32.5	47.8	52.3	55.1	68.1	78.9	96.7	108.2	114.2			
Heating capacity	Nom.		kW	17.9	27.0	31.3	46.1	51.9	56.3	63.8	76.6	93.3	104.5	114.2			
	with 30% fresh air		kW	18.3	27.5	31.8	48.8	52.6	57.2	65.5	77.8	94.9	106.0	116.6			
Space cooling	Capacity	Pdesign	kW	19.5	28.0	30.4	44.1	49.2	51.6	63.5	73.9	90.3	101.6	106.8			
	ηs,c		%	135.0	143.5	127.5	119.5	134.1	129.0	130.4	124.6	118.2	137.9	127.0			
Space heating	Capacity	Pdesign	kW	17.9	27.0	31.3	46.1	51.9	56.3	63.8	76.6	93.3	104.5	114.2			
	(Average climate) ηs,h		%	115.4	129.0	119.5	115.4	125.2	124.8	121.0	118.2	116.0	125.3	124.3			
Power input	Cooling	Nom.	kW	6.6	10.0	12.0	17.0	19.7	22.5	23.6	29.7	33.8	39.0	44.3			
	Heating	Nom.	kW	5.8	8.0	9.6	14.6	16.3	18.1	20.0	25.1	29.9	33.2	37.3			
EER	with 30% fresh air			3.14	2.95	2.67	2.82	2.60	2.41	2.85	2.61	2.82	2.73	2.53			
COP	with 30% fresh air			3.37	3.75	3.56	3.44	3.48	3.40	3.64	3.31	3.38	3.43	3.35			
Evaporator	Supply side	Fan	Air flow rate	m³/s	1.375	2.017	2.292	3.056	3.361	3.667	4.278	4.889	5.806	6.569	7.028		
			Nom. external static pressure	Pa	300												
Return side	Fan	Air discharge direction		Frontal, Left			Frontal, Left, Right, Bottom			Left, Right, Bottom							
		Air intake direction		Rear			Rear, Right, Left			Right-Rear							
Fresh air	Standard	Ratio	%	yes													
				In free cooling	%	30											
Condenser	Air flow rate	Cooling	m³/s	3.194	3.333			5.277			9.222		12.222				
	Refrigerant	Type / GWP					R410-A / 2,087.5										
Condenser	Charge	TCO2Eq / kg		15.7 / 7.5	27.1 / 13.0			35.5 / 17.0			31.3 / 15.0		41.8 / 20.0		43.8 / 21.0		48.0 / 23.0
			Dimensions	Unit	Height x Width x Depth	mm	1,600 x 1,790 x 1,730			1,800 x 2,715 x 2,245			1,800 x 4,650 x 2,240		2,180 x 4,850 x 2,240		
Weight	Unit	kg		679	788			1,098			1,698		1,906		1,914	1,966	
			Casing	Colour		RAL 7035											
Sound pressure level	Cooling	dBA		60				61			63		64		65		
			Sound power level	Cooling	dBA	77	78			79			81		83		85
Operation range	Cooling	Min. ~ Max.	°CDB	0 ~ 47													
				Heating	Min. ~ Max.	°CWB -12.1 ~ 19.5											
Power supply	Voltage / Phase / Frequency	V / Hz	400/3+N/50 ±5%														
			Current	Recommended fuses	A	25	32	40	50	63	80	100	400/3/50 ±5%		125		

## UATYQ-AFC3Y1 - FC3 version - up to 100% fresh air and air extraction

UATYQ-AFC3Y1				20	25	30	45	50	55	65	75	90	100	115			
Cooling capacity	Nom.		kW	19.5	28.0	30.4	44.1	49.2	51.6	63.5	73.9	90.3	101.6	106.8			
	with 30% fresh air		kW	21.1	30.4	33.2	47.8	53.4	56.3	68.1	78.9	96.7	108.2	114.2			
Heating capacity	Nom.		kW	17.9	27.0	31.3	46.1	51.9	56.3	63.8	76.6	93.3	104.5	114.2			
	with 30% fresh air		kW	18.9	28.7	33.2	48.8	54.9	59.7	65.5	77.8	94.9	106.0	116.6			
Space cooling	Capacity	Pdesign	kW	19.5	28.0	30.4	44.1	49.2	51.6	63.5	73.9	90.3	101.6	106.8			
	ηs,c		%	135.0	143.5	127.5	119.5	134.1	129.0	130.4	124.6	118.2	137.9	127.0			
Space heating	Capacity	Pdesign	kW	17.9	27.0	31.3	46.1	51.9	56.3	63.8	76.6	93.3	104.5	114.2			
	(Average climate) ηs,h		%	115.4	129.0	119.5	115.4	125.2	124.8	121.0	118.2	116.0	125.3	124.3			
Power input	Cooling	Nom.	kW	6.6	10.0	12.0	17.0	19.7	22.5	23.6	29.7	33.8	39.0	44.3			
	Heating	Nom.	kW	5.8	8.0	9.6	14.6	16.3	18.1	20.0	25.1	29.9	33.2	37.3			
EER	with 30% fresh air			3.25	3.08	2.82	2.82	2.70	2.53	2.82	2.58	2.79	2.70	2.51			
COP	with 30% fresh air			3.46	3.84	3.66	3.44	3.51	3.42	3.58	3.26	3.33	3.38	3.30			
Evaporator	Supply side	Fan	Air flow rate	m³/s	1.375	2.017	2.292	3.056	3.361	3.667	4.278	4.889	5.806	6.569	7.028		
			Nom. external static pressure	Pa	300												
Return side	Fan	Air discharge direction		Frontal, Left			Frontal, Left, Right, Bottom			Left, Right, Bottom							
		Air intake direction		N/A			3.056			3.361		3.667		4.278		4.889	5.806
Fresh air	Standard	Therm. heat recovery	%	yes													
				Ratio	%	30											
Condenser	Air flow rate	Cooling	m³/s	3.194	3.333			5.277			9.222		12.222				
	Refrigerant	Type / GWP					R410-A / 2,087.5										
Condenser	Charge	TCO2Eq / kg		15.7 / 7.5	27.1 / 13.0			35.5 / 17.0			31.3 / 15.0		41.8 / 20.0		43.8 / 21.0		48.0 / 23.0
			Dimensions	Unit	Height x Width x Depth	mm	1,600 x 1,790 x 1,730			1,800 x 3,530 x 2,245			1,800 x 5,650 x 2,240		2,180 x 5,650 x 2,240		
Weight	Unit	kg		686	796			1,382			2,142		2,338		2,346	2,398	
			Casing	Colour		RAL 7035											
Sound pressure level	Cooling	dBA		60				61			63		64		65		
			Sound power level	Cooling	dBA	77	78			79			81		83		85
Operation range	Cooling	Min. ~ Max.	°CDB	0 ~ 47													
				Heating	Min. ~ Max.	°CWB -12.1 ~ 19.5											
Power supply	Voltage / Phase / Frequency	V / Hz	400/3+N/50 ±5%														
			Current	Recommended fuses	A	25	32	40	63	80	100	400/3/50 ±5%		125			

# Options

		Base series - UATYQ-ABAY1			2 damper series - UATYQ-AFC2Y1					3 damper series - UATYQ-AFC3Y1				
		20-55	65-75	90-115	20	25-30	45-55	65-75	90-115	20	25-30	45-55	65-75	90-115
<b>UATYQWRC</b> Remote controller (standard 1 delivered with the unit)		•	•	•	•	•	•	•	•	•	•	•	•	•
<b>UATYQBACNET</b> BMS interface: BACnet (IP); Modbus (TCP/IP)		•	•	•	•	•	•	•	•	•	•	•	•	•
<b>UATYQAVM1</b> Anti-vibration mounts		2x	3x	4x	2x	2x	2x	4x	4x	2x	2x	3x	4x	4x
Rainproof hood & protection grill					UATYQRAPH1	UATYQRAPH2	UATYQRAPH3	UATYQRAPH4	UATYQRAPH5	UATYQRAPH1	UATYQRAPH2		UATYQRAPH4 x2 (1)	UATYQRAPH5 x2 (1)

(1) Requires 2 kits for both fresh air and exhaust air

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**Daikin Airconditioning UK Limited** The Heights Brooklands Weybridge Surrey KT13 0NY Tel 0845 6419000 Fax 0845 6419009 [daikin.co.uk](http://daikin.co.uk)

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0845 641 9330

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